<u>AMENDMENTS TO THE CLAIMS</u>

Please amend the claims as follows:

Claim 1 (Currently Amended): A system for monitoring temperature conditions, comprising:

a fiber optic cable;

a light emitting device coupled to said fiber optic cable and configured to input a light pulse into said fiber optic cable;

an optical receiver coupled to said fiber optic cable and configured to receive a reflection signal that arises from said input light pulse in said fiber optic cable; and

a processor configured to determine temperature conditions on different portions of the fiber optic cable based on said reflection signal, ~~said determination being~~ <u>wherein said</u> <u>processor is configured to determine said temperature conditions</u> based on a comparison performed for each of said different portions of the fiber optic cable<u>,</u>

<u>wherein said comparison is performed with respect to a threshold value corresponding</u> <u>to one of said portions, and</u>

<u>wherein said processor is configured to adjust said threshold value to detect different</u> <u>temperature conditions.</u>

Claim 2 (Previously Presented): The system of claim 1, wherein said processor is configured to determine said temperature conditions based on an amplitude of said reflection signal.

Claims 3-4 (Cancelled).

Claim 5 (Previously Presented): The system of claim 1, wherein said processor is configured to determine a location for one of said portions of the fiber optic cable based on a return time of said reflection signal.

Claim 6 (Cancelled)

Claim 7 (Currently Amended): A system for monitoring temperature conditions, comprising:

a fiber optic cable;

a light emitting device coupled to said fiber optic cable and configured to input a light pulse into said fiber optic cable;

an optical receiver coupled to said fiber optic cable and configured to receive a reflection signal that arises from said input light pulse in said fiber optic cable; and

a processor configured to determine temperature conditions on different portions of the fiber optic cable based on said reflection signal, wherein said processor is configured to determine said temperature conditions based on a comparison performed for each of said different portions of the fiber optic cable,

wherein said comparison is performed with respect to a comparison signal corresponding to one of said portions, and

The system of claim 34, wherein said processor is configured to adjust said comparison signal to detect different temperature conditions among said different portions of the fiber optic cable.

Claim 8 (Previously Presented): The system of claim 5, wherein said processor is configured to determine said location by determining at least one of a location relative to an

overall length of the fiber optic cable, and an absolute distance from one end of the fiber optic cable.

Claim 9 (Original): The system of claim 1, wherein said processor is configured to determine at least one of a temperature duration and a temperature progression over a predetermined time interval.

Claim 10 (Original): The system of claim 1, further comprising a signal generator configured to initiate at least one of an alarm, a safety measure and a corrective measure.

Claim 11 (Currently Amended): A system for monitoring a temperature conditions, comprising:

a fiber optic cable;

means for inputting a light pulse into said fiber optic cable;

means for receiving a reflection signal that arises from said input light pulse in said fiber optic cable; and

means for determining temperature conditions on different portions of said the fiber optic cable based on said reflection signal, said means for determining including means for performing a comparison for each of said different portions of the fiber optic cable;

means for determining said temperature conditions based on at least one of a threshold value and a comparison signal corresponding to one of said portions; and

means for adjusting said threshold value to detect different temperature conditions.

Claim 12 (Previously Presented): The system of claim 11, further comprising means for determining said temperature conditions based on an amplitude of said reflection signal.

Claims 13-14 (Cancelled).

Claim 15 (Previously Presented): The system of claim 11, further comprising means for determining a location for one of said portions of the fiber optic cable based on a return time of said reflection signal.

Claim 16 (Cancelled)

Claim 17 (Currently Amended): The system of claim ~~13~~ 11, further comprising means for adjusting said comparison signal to detect different temperature conditions.

Claim 18 (Previously Presented): The system of claim 15, further comprising means for determining said location by determining at least one of a location relative to an overall length of the fiber optic cable, and an absolute distance from one end of the fiber optic cable.

Claim 19 (Original): The system of claim 11, further comprising means for determining at least one of a temperature duration and a temperature progression over a predetermined time interval.

Claim 20 (Original): The system of claim 11, further comprising means for generating a signal to initiate at least one of an alarm, a safety measure and a corrective measure.

Claim 21 (Currently Amended): A computer readable medium containing program instructions for execution on a computer controlled system for monitoring temperature conditions, which when executed by the system, cause the system to perform the following steps:

input a light pulse into a fiber optic cable of the system;

receive a reflection signal that arises from said input light pulse in said fiber optic cable; ~~and~~

determine temperature conditions on different portions of the fiber optic cable based on said reflection signal, ~~said determination being~~ wherein said temperature conditions are determined based on a comparison performed for each of said different portions of the fiber optic cable;

determine said temperature conditions based on at least one of a threshold value and a comparison signal corresponding to one of said portions,

adjust said threshold value to detect different temperature conditions.

Claim 22 (Previously Presented): The computer readable medium of claim 21, wherein said program instructions further cause said system to determine said temperature conditions based on an amplitude of said reflection signal.

Claims 23-24 (Cancelled).

Claim 25 (Previously Presented): The computer readable medium of claim 21, wherein said program instructions further cause said system to determine a location for one of said different portions of the fiber optic cable based on a return time of said reflection signal.

Claim 26 (Cancelled)

Claim 27 (Currently Amended): The computer readable medium of claim ~~23~~ 21, wherein said program instructions further cause said system to adjust said comparison signal to detect different temperature conditions.

Claim 28 (Previously Presented): The computer readable medium of claim 25, wherein said program instructions further cause said system to determine said location by determining at least one of a location relative to an overall length of the fiber optic cable, and an absolute distance from one end of the fiber optic cable.

Claim 29 (Previously Presented): The computer readable medium of claim 21, wherein said program instructions further cause said system to determine at least one of a temperature duration and a temperature progression of said temperature conditions over a predetermined time interval.

Claim 30 (Original): The computer readable medium of claim 21, wherein said program instructions further cause said system to generate a signal to initiate at least one of an alarm, a safety measure and a corrective measure.

Claim 31 (Currently Amended): The system of claim 1, wherein ~~the~~ said processor is configured to detect and recognize a temperature increase, said temperature increase being characteristic of a faulty escape of air from an aircraft pipe system.

Claim 32 (Previously Presented): The system of claim 31, wherein said aircraft pipe system is a pressurized air system configured to deliver hot pressurized bleed air from an aircraft engine.

Claim 33 (Previously Presented): The system of claim 1, wherein a break of said fiber optic cable is detectable with an end reflection signal, a portion of said cable between said break and said optical receiver remaining functional for monitoring a temperature condition.

Claim 34 (Previously Presented): The system of claim 1, wherein said comparison is performed with respect to a comparison signal corresponding to one of said portions.

Claim 35 (Currently Amended): The system of claim 3 1, wherein different thresholds are allocated to different portions of the fiber optic cable.

Claim 36 (Currently Amended): The system of claim 3 1, wherein different thresholds are allocated to different ranges of a transit time of said reflection signal.